Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Amendment of the Commission's Rules Governing Certain Aviation Ground Station Equipment	)	WT Docket No. 10-61
Petition of the National Telecommunications and Information Administration to Allow Aeronautical Utility Mobile Stations to Use 1090 MHz for Runway Vehicle Identification and Collision Avoidance	)	RM-11503
Potomac Aviation technology Corporation Request for Interpretation or Waiver of Sections 87.71 and 87.73 of the Commission's Rules	)	WT Docket No. 09-42

To the Commission:

INITIAL COMMENTS OF DENVER INTERNATIONAL AIRPORT

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SUMMARY

The Denver International Airport ("DIA" or "Airport") is the world's tenth busiest airport and the fifth largest in the world, having served more than 50 million passengers in 2009. The Airport occupies the second largest airport site in the world occupying some 53 square miles. The Airport operates 6 runways and its ramp area alone is the largest and most complex in the nation, featuring multi-directional flows between runways, taxiways (i.e., the "movement areas") and adjacent ramp areas. DIA has a dedicated Ramp Tower in order to control the movements of, and thereby help prevent collisions between, aircraft and ground vehicles within and between these movement (e.g., runways) and non-movement areas of the Airport.

Therefore, the DIA commends the Commission, working in concert with the Federal Aviation Administration ("FAA"), for its initiative to authorize the use of 1090 MHz vehicle squitters in the movement areas at DIA and 38 other U.S. airports designated by the FAA. The Airport encourages the Commission to promptly put into place permanent rules for such use and to encourage, in a technologically neutral way, the development of 1090 MHz vehicle squitters that can quickly satisfy the FCC's applicable equipment authorization procedures.

In addition, DIA strongly recommends that the Commission's final rules permit use of such vehicle squitters on certain safety-related and airport operations vehicles (e.g., snow removal vehicles and emergency management services vehicles, such as police and airport rescue and firefighting vehicles (collectively, "airport operations vehicles")) required to operate in non-movement areas (i.e., ramp and other prescribed areas adjacent to runways and taxiways) where there is a demonstrated need for vehicle identification in order to avoid or reduce the risk of collision. The Commission's rules should provide that the FAA may determine and designate

such non-movement areas as part of the FCC-contemplated process for licensing 1090 MHz use for vehicle squitters at a particular airport.

This authority would be strictly limited to airport operations vehicles. Such use would not be permitted for baggage carts, catering trucks or other, similar vehicles. The total number of authorized 1090 MHz vehicle squitters would remain at a maximum of 200 at each designated airport, as proposed by the Commission.

The sole purpose of using 1090 MHz vehicle squitters in the non-movement areas would be to provide surface data to aircraft and aircraft control authorities. The DIA Ramp Tower controls the movement of aircraft in the non-movement areas and ground vehicles in those areas. The ramp frequently experiences a high density of aircraft and ground vehicles moving in multiple directions. Adverse weather conditions, such as low visibility during snowstorms, thunderstorms and fog, increase the risk of aircraft/vehicle collisions. The ability to use 1090 MHz vehicle squitters in non-movement areas will enhance airport safety in such circumstances and during periods of ramp congestion, ground delays, ramp holds and when there are dual or multi-directional traffic flows (e.g., to and from de-ice pads near the movement areas).

DIA has already invested several million dollars of its own to acquire the necessary equipment that could provide coverage to accommodate the use of 1090 MHz vehicle squitters in non-movement areas to help ensure safe and efficient Airport operations. The Airport is currently working closely with FAA officials on these mutual safety and efficiency concerns.

In the final analysis, the Commission should recognize that a “one-size-fits-all” policy with respect to use of 1090 MHZ vehicle squitters in non-movement areas is counter to the Commission’s prime goal in this proceeding to promote aviation safety. A blanket ban on such use fails to take into consideration the special circumstances that exist at DIA and likely other

major airports. The Commission should therefore provide the flexibility in its rules to accommodate those circumstances in the interest of enhancing aviation safety.

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To the Commission:

INITIAL COMMENTS OF DENVER INTERNATIONAL AIRPORT

The Denver International Airport ("DIA" or "Airport"), acting with counsel and pursuant to Section 1.415(b) of the Federal Communications Commission's ("FCC" or "Commission") Rules, 47 C.F.R. § 1.415(b), hereby respectfully submits its initial comments on the Commission's Notice of Proposed Rule Making, released in WT Docket No. 10-61, RM-11503 and WT Docket No. 09-42, March 16, 2010, regarding the use of the 1090 MHz band to operate aeronautical mobility stations for runway vehicle identification and collision avoidance.[1]

[1] *In the Matter of Petition of National Telecommunications and Information Administration to Allow Aeronautical Utility Mobile Stations to Use 1090 MHz for Runway Vehicle Identification and Collision Avoidance, Notice of Proposed Rulemaking*, FCC 10-37, released March 16, 2010 ("*NPRM*"). These Initial Comments are timely filed in accordance with the notice published in the Federal Register on April 28, 2010. 75 Fed Reg 22352 (April 28, 2010).

I. INTRODUCTION AND BACKGROUND

DIA commends the Commission for its efforts to "promote aviation safety on runways" through "better detection and management of maintenance and other vehicles on runways, to help avoid airplane collisions."[2] As the Commission itself has previously noted, airport surface detection equipment ("ASDE-X") currently used to manage the movement of aircraft on the airport surfaces has not been used in the same manner to monitor other vehicles that routinely operate on the "runway movement area" – a shortcoming that the Commission concurs needs to be corrected.[3]

Thus, the *NPRM* would be a substantive step forward to help address "growing concerns about airplanes colliding with, or having to take evasive measures to avoid, vehicles on the airport surface."[4] Modifying the Commission's rules to allow use of 1090 MHz by aeronautical mobility mobile stations, commonly referred to as "vehicle squitters," will further "improve the safety of the flying public and airline and airport employees by reducing the risk of aircraft colliding with ground vehicles."[5]

However, DIA strongly recommends that the Commission's rules provide the flexibility to use such vehicle squitters on certain airport operations and safety-related vehicles operating in

[2] *NPRM*, ¶1.

[3] *In the Matter of Request For Waiver to Allow Aeronautical Utility Mobile Stations to Use 1090 MHz for Runway Vehicle Identification and Collision Avoidance, Order,* DA 10-259 (Wireless Telecom. Bur., released February 17, 2010), ¶2 (*"Waiver Order"*). Under the Commission's existing rules, the "runway movement area" is limited to "the runways, taxiways, and other areas utilized for taxiing, takeoff and landing of aircraft, exclusive of loading ramp and parking areas." *Id.*, ¶4, n.10. Hereinafter the "runway movement area" is referred to as "movement area."

[4] *Waiver Order*, ¶2.

[5] *Id.*, ¶3. Of course the *Waiver Order* already has provided an interim mechanism for certain airports to license use of 1090 MHz vehicle squitters.

non-movement areas (e.g., ramps and other locales adjacent to movement areas where the presence, identification and detection of such ground vehicles is integral to safe and efficient airport operations) which are moving to or from a movement area. A blanket prohibition on use of 1090 MHz vehicle squitters in non-movement areas would pose safety risks at DIA, particularly because of its airfield configuration, and perhaps other hub airports.

A. The Airport

DIA is by 2009 statistics the world's tenth busiest airport and the fifth busiest in the United States, having served more than 50 million passengers in 2009. Seventeen airlines provide over 1600 daily scheduled commercial flights to 167 non-stop destinations from the Airport. DIA is the sixth largest domestic origination and destination hub in the U.S.

DIA employs some 31,000 people. Geographically, the Airport is the largest airport site in North America, occupying some 53 square miles, and the second largest in the world.

DIA currently operates and supports six separate runways, including the longest commercial runway in the United States (at 16,000 feet).[6] Associated and intersecting with these runways and their operations is an array of adjacent or connected ramps, taxiways and apron areas, where it is critical that DIA and FAA also be able to detect, monitor and control the movement of aircraft and safety-related vehicles, in a variety of weather and traffic congestion conditions.

[6] As traffic growth justifies expansion, DIA's long-term planning contemplates up to six (6) additional runways and supporting facilities.

The DIA ramp area alone is the largest and most complex in the nation, featuring multi-directional traffic flows between movement and non-movement areas.[7] Frequently, the ramp area experiences a highly concentrated mix of aircraft and ground vehicle movements. Indeed, the Airport has a dedicated Ramp Tower in order to control the movement of aircraft and ground vehicles in non-movement areas and vehicles moving between movement and non-movement areas.

DIA has already invested several million dollars of its own to acquire ASDE-X coverage capability in its non-movement areas to help ensure safe and efficient Airport operations. The Airport is currently working closely with Federal Aviation Administration ("FAA") officials on these mutual safety and efficiency concerns.

B. The Commission's Waiver Order And NPRM

In the *Waiver Order*, the Commission recognized the importance and urgency of addressing the use of 1090 MHz for vehicle squitters and granted an interim waiver of certain Part 87 rules to do so at FAA- specified airports that had deployed or were scheduled to receive specified ASDE-X or other detection equipment.[8] DIA is among the eligible airports and the Airport already has ASDE-X equipment in place for tracking aircraft on movement areas.

[7] An overview of the Airport's current system of runways, taxiways, ramps and apron areas is Exhibit 1.

[8] The *Waiver Order* covered 39 airports which either had or were scheduled to receive ASDE-X multilateration systems or automatic dependent surveillance broadcast ("ADS-B") equipment. *See Letter, dated April 9, 2009, from Oscar Alvarez, Director, Spectrum Engineering Services, Federal Aviation Administration, to Edward Davidson, Chairman, Interdepartmental Radio Advisory Committee.*

The *Waiver Order* imposed certain technical, licensing and operational limitations on use of 1090 MHz for vehicle squitters at these eligible airport locations. Among the qualifications, the waiver authority was expressly limited to "aeronautical utility mobile stations [i.e., vehicle squitters] operated within the runway movement area."[9]

In general the *NPRM* now proposes to incorporate into Part 87 of the Commission's rules essentially the same "terms and conditions" for use of the 1090 MHz band for vehicle squitters as reflected in the *Waiver Order.* However, the *NPRM* seeks specific comment on whether to limit use of vehicle squitters to the movement areas.

> "Sensis also recommends that vehicle squitters be permitted to operate only in the runway movement area, in order to prevent the use of the system for purposes other than vehicle or aircraft safety, such as tracking baggage carts. Similarly, the NTIA proposes to permit 1090 MHz vehicle squitters only 'where the primary purpose…is to provide surface data to aircraft and aircraft control authorities.' Atlanta, on the other hand, specifically contemplates using vehicle squitters to track baggage carts, though the anticipated area of such usage is not clear. *We seek comment on whether to limit operation of 1090 MHz vehicle squitters to the runway movement area."*[10]

II. DIA GENERALLY SUPPORTS THE NPRM PROPOSALS

DIA generally supports the proposals in the *NPRM*. The Commission in its *Waiver Order* has already made the correct substantive judgment about the import for and impact on airport safety of allowing use of the 1090 MHz for vehicle squitters.

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[9] *Waiver Order*, ¶4. The *Waiver Order* provided that "[t]o the extent practicable, transmitters shall be turned off when vehicles are outside the runway movement area." *Id.*

[10] *NPRM*, ¶12 (emphasis supplied).

DIA believes that the limitation to 200 vehicle squitters at each eligible airport is reasonable. The Airport also concurs in the Commission's conclusion that the "FAA is best suited to evaluate the need for vehicle squitters at each location" (i.e., airport).[11] DIA understands the rationale for a licensing process required by the Commission, but would hope that the process will avoid undue delays in granting licenses at FAA-authorized locations.

The Airport urges the Commission to act expeditiously to consider the comments and reply comments submitted in response to the *NPRM*. The Commission should give a high priority to addressing any issues raised by the comments and putting into place a final rule that will permit use of 1090 MHz for vehicle squitters. In the meantime, the Commission should expeditiously act on any applications for licenses filed in accordance with the *Waiver Order*.

The Commission, working with the FAA, should encourage, in a technologically neutral way, the development of vehicle squitters that can quickly satisfy the Commission's applicable equipment authorization procedures. The authority under the *Waiver Order* and a final rule adopted pursuant to the *NPRM* will be meaningless, and the issues of airport safety addressed therein unresolved, if no approved vehicle squitter equipment is available.[12] Expeditious action on the *NPRM* may encourage the development of such FCC-authorized equipment.

[11] *Id.*, ¶13.

[12] In the *Waiver Order* the Commission declined to waive its Part 2 equipment authorization procedures. As a result, to date, to DIA's knowledge, there has been no vehicle squitter that has complied with these procedures and no license issued under the *Waiver Order*. The Commission has said that it will issue no such licenses without such equipment authorizations.

While generally agreeing with the terms and conditions of use set forth in the *NPRM*, DIA does not support limiting use of this technology to movement areas. The Commission should not incorporate such limitations into its rules for the reasons stated below.

III. VEHICLE SQUITTERS OPERATING ON 1090 MHZ SHOULD BE PERMITTED ON CERTAIN VEHICLES OPERATING OUTSIDE THE MOVEMENT AREAS

The Commission's rules should not limit operation of 1090 MHz vehicle squitters to the movement areas. At least in DIA's case (and perhaps other airports as well), there is genuine and legitimate safety justification to use such equipment to track vehicles in certain safety critical non-movement areas of the Airport.

Therefore, DIA strongly recommends that the Commission's rules permit use of such vehicle squitters on certain safety-related and airport operations vehicles (e.g., snow removal vehicles, and emergency management services ("EMS") vehicles, such as police and airport rescue and firefighting ("ARFF") vehicles) required to operate in ramp and other prescribed areas adjacent to the movement areas, where there is a demonstrated need for vehicle identification in order to avoid or reduce the risk of collision.

Since the Commission recognizes that the FAA is best suited to evaluate the need for vehicle squitters at each airport, the Commission's rules should give the FAA the flexibility to determine and designate non-movement areas at eligible airports where such 1090 MHz vehicle squitters may be used. DIA is currently in discussions with the FAA to identify its particular non-movement areas in need of coverage. The FAA could do so as part of the licensing coordination process with the FCC envisioned by the *NPRM*.

The purpose of extending the use of vehicle squitters in these non-movement areas would be solely for ground vehicle and aircraft safety. DIA *does not* support use of vehicle squitters in non-movement areas for baggage carts, catering trucks or other, similar vehicles. DIA supports use on ARFF vehicles, snow removal equipment, and certain airport operations vehicles.[13] In other words, they would be deployed only on a vehicle whose function contributes to the safe and efficient operation of the Airport.

The vehicle squitters used for such vehicles would not exceed the proposed limit of 200 vehicle squitters per eligible airport. DIA is not seeking to expand that number in order to address the need to equip vehicles that would operate in non-movement areas. Thus, there should be no concern about increased potential for interference as a result of vehicle squitters in use in these areas. Similarly, the episodic use in accordance with the duration limitations in the *NPRM* should avoid concerns about congestion on use of the 1090 MHz frequency even with some vehicles now operating in critical non-movement areas. The Commission also notes that there are other frequencies (e.g., 978 MHz) available for use with ASDE-X equipment in the future, which could further alleviate congestion and interference concerns.[14]

The sole purpose to use vehicle squitters in the non-movement areas would be to provide surface data to aircraft and aircraft control authorities. In the case of DIA, allowing such use would enhance the safety of airfield managed by the Airport's Ramp Tower. As noted above, the

[13] The Commission has long recognized the importance of allocating frequencies for communications with and among such vehicles. *See In the Matter of Amendment of the Aviation Services Rules (Part 87) To Make An Additional Frequency Available To Aeronautical Utility Mobile Stations AT Airports With A Control Tower*, 67 RR2d 1636 (1990).

[14] *NPRM*, ¶8.

DIA Ramp Tower controls the movement of aircraft in the non-movement areas and ground vehicles on taxiways in those areas. DIA's ramp frequently experiences a high density of aircraft and ground vehicles moving in multiple directions. The Airport Ramp Tower will have an ASDE-X data feed and monitor, supplemented with additional multilateration sensors, all to be paid for by the Airport, which would allow implementation of enhanced safety precautions in these areas.

This flexibility is essential at DIA because certain portions of the non-movement areas often are busy with ground vehicle operations and have numerous visual blind spots. Adverse weather conditions, such as low visibility during snowstorms, thunderstorms, and fog, increase the risks of aircraft/vehicle collisions. Employing 1090 MHz vehicle squitters in non-movement areas will enhance safety by helping to avoid collisions during periods of ramp congestion, ground delays, ramp holds, adverse weather conditions, and when there are dual or multi-directional traffic flows (e.g., to and from de-ice pads near the movement areas).[15]

For all the foregoing reasons, the Commission should recognize that a "one-size-fits-all" policy with respect to use of 1090 MHz vehicle squitters in non-movement areas is counter to the prime goal of the *NPRM* to promote aviation safety. A blanket ban on such use fails to take into consideration the special circumstances that exist at DIA and likely other major airports.

IV. CONCLUSION

DIA generally supports the proposals included in the *NPRM*. However, it is critical that the FCC permit the use of 1090 MHz vehicle squitters for safety-related vehicles in non-

[15] Exhibit 2 includes photographs of these non-movement areas during a snow storm that illustrate the aircraft/vehicle collision potential that exists in those circumstances.

movement areas as outlined herein. Such flexibility will allow airports, working with the FAA, to further enhance airfield safety and reduce the risk of collision between aircraft and ground vehicles in circumstances like DIA's where ground traffic, weather and other circumstances can pose risks of their occurrence.

Respectfully Submitted,

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Exhibit 1
Map of Movement Area (Red) and Non-Movement Area (Green)
Denver International Airport

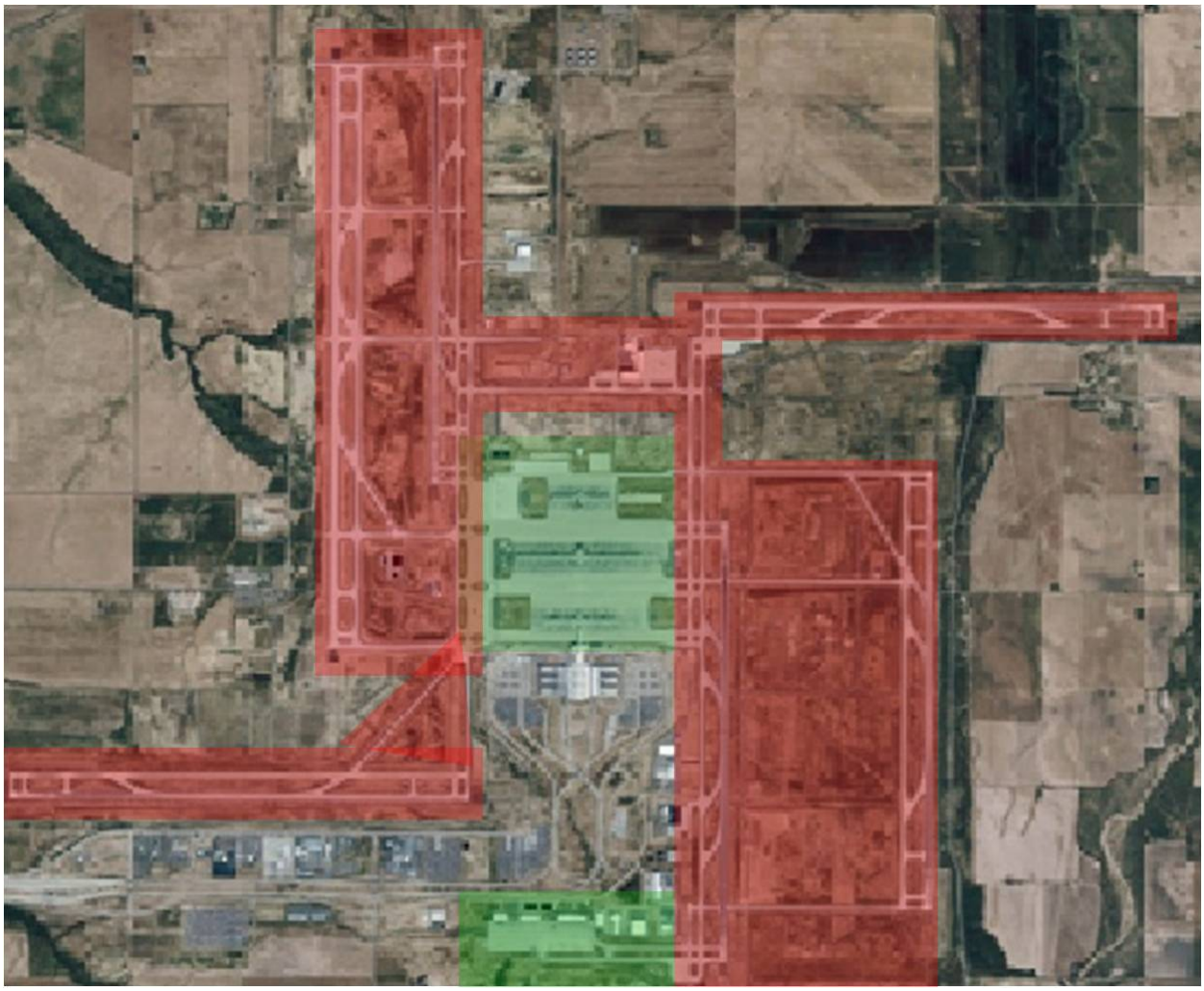

Exhibit 2
Non-Movement Area Traffic During Snowstorm
Denver International Airport


UNITED AIRLINES